



Research Paper

Effectiveness of Graphic Organizer Strategy on Achievement in Geography among Secondary School Students

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ABSTRACT

The most effective learning takes place when there is a maximum of mental activity. A good teacher should be one who knows many effective techniques to impart knowledge to his pupils. The present study was an attempt to find out the effectiveness of Graphic organizer Strategy over the existing method of teaching on achievement in Geography among Secondary School students. The graphic organizers are designed to facilitate understanding of key concepts by allowing students to visually identify key points and ideas. Use of graphic organizers across all subject areas, will be empowering students to master subject matter faster and more effectively. The present study has been conducted employing the experimental method, and the design used was the pre-test post-test non-equivalent group design. The sample consisted of 60 secondary school students, comprising two intact class groups (30 pupils each) as the experimental and control groups respectively. The study made use of two types of lesson transcripts, and achievement test in geography. Statistical techniques used were mean difference analysis. Analysis of the data revealed that students taught through Graphic organizer strategy performed better than those who were taught through existing method of teaching. Graphic organizer strategy helps the students to understand the Geography concepts easily and it will remain in memory for a long time.

Key terms: graphic organizer strategy, achievement in Geography.

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I. INTRODUCTION

An effective teaching technique will have a lasting mark upon the minds of the learners about the matters he has learned. There are different types of teachers and they have to adopt different methods of teaching. A good teacher should practice almost all possible means and methods of making teaching more effective and interesting. Teaching through graphic organizer will be more effective and it creates interest in the mind of the learner to learn that subject. Graphic organizer is one of the effective innovative strategies which the teacher can adopt in the Geography classroom. Graphic organizer is a visual learning strategy, which creates interest in the learner to learn Geography. Graphic organizers include any type system that helps students visualize information in a new way and it will reduce the bareness of the students to learn this subject. This strategy helps the students to understand the Geography concepts easily and it will remain in memory for a long time.

SIGNIFICANCE OF THE STUDY

Among the different branches of Social Science, students found it more difficult to learn Geography. Thus the investigator felt the need to adopt innovative teaching strategies in Geography classrooms. This understanding gained through the investigator's experience, led to the selection of this topic. Thus the investigator has tried to develop Geo-games decided to test its effectiveness on enhancing Achievement in Geography. It is presumed that a study of this type will be useful for the students, teachers and curriculum planners to make the teaching-learning process more interesting, effective and meaningful.

OBJECTIVES OF THE STUDY

1. To develop a strategy based on Graphic organizer to impart instruction in Geography at Secondary level.

2. To test the effectiveness of Graphic organizer strategy in terms of achievement in Geography of Secondary School students with respect to total sample.

HYPOTHESES OF THE STUDY

1. There exists no significant difference in the mean pretest scores of Achievement in Geography between Secondary School students following Graphic organizer strategy and existing method.
2. There exists significant difference in the mean posttest scores of Achievement in Geography between Secondary School students following Graphic organizer strategy and existing method.

METHODOLOGY OF THE STUDY

Method

The Experimental method was found appropriate for the study. The investigator adopted *Pretest-Posttest Non-equivalent Group Design*.

Variables

The Independent variables selected for the study are Graphic organizer strategy/ Existing method and the Dependent variables are Achievement in Geography.

Sample

Experimental study was conducted on a total sample of 60 students, 2 groups including 30 students each for the experimental and control group from standard VIII.

Tools

The lesson transcripts based on Graphic organizer strategy and Existing method on selected topics of Geography and Achievement test in Geography

Statistical Techniques used for the study

The collected data had been analyzed both descriptively and inferentially. t' test was employed for inferential analysis of data.

ANALYSIS AND INTERPRETATION

Preliminary analysis is an initial step of statistical analysis. The investigator computed the important statistical constants like mean, median, mode and standard deviation in order to examine the distribution of scores obtained.

HYPOTHESIS 1

There exists no significant difference in the mean pretest scores of Achievement in Geography between Secondary School students following Graphic organizer Strategy and Existing Method.

Table 1
Data and Results of the t-test for the pretest scores between the Experimental Group and Control Group

Groups	Number	Arithmetic Mean	Standard Deviation	t value	Level of significance
Experimental	30	9.5	3.58	0.88	0.05
Control	30	8.7	3.49		
Result	t value is not significant				

From above table1, it can be seen that the pretest scores of achievement in Geography of students in the experimental and control groups do not differ significantly even at 0.05 level (obtained value of t = 0.88). It can be concluded that there was no significant difference in the mean pretest scores of Achievement in Geography between students following Graphic organizer strategy and existing method.

HYPOTHESIS 2

There exists significant difference in the mean posttest scores of Achievement in Geography between Secondary School students following Graphic organizer Strategy and Existing Method.

Table 2
Data and Results of the t-test for the posttest scores between the Experimental Group and Control Group

Groups	Number	Arithmetic Mean	Standard Deviation	t value	Level of significance
Experimental	30	20.17	8.08	11.26	0.01
Control	30	11.6	9.28		

Result	t value is significant
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From the above table2, it can be seen that the obtained t value 11.26 is significant at 0.01 level. Thus it can be inferred that there exists significant difference between the mean posttest scores of Achievement in Geography between secondary school students following Graphic organizer strategy and existing method.

II. FINDINGS OF THE STUDY

1. Comparison of the mean pretest scores of Achievement in Geography between Graphic organizer Strategy and existing method at Secondary level.

Result of the analysis showed that there was no significant difference in the mean pretest scores of Achievement in Geography between Graphic organizer Strategy and existing method at Secondary level ($t = 0.88, P > 0.05$).

2. Comparison of the mean posttest scores of Achievement in Geography between Secondary School students following Graphic organizer Strategy and Existing Method.

Result of the analysis showed that there was significant difference in the mean posttest scores of Achievement in Geography between Secondary School students following Graphic organizer Strategy and Existing Method ($t = 11.26, P < 0.01$). The Graphic organizer strategy is more effective than the existing method in enhancing achievement in geography among secondary school students.

III. CONCLUSION

The study was intended to measure the effect of Graphic organizer Strategy on Achievement in Geography among Secondary School students. The findings of the study revealed that the Graphic organizer Strategy were effective in Geography teaching. The investigator would be satisfied if the findings of the study would lead to better understanding of the teaching-learning process, help student to learn in a more natural and meaningful way, guide school teachers to plan the topics by using Graphic organizers and to motivate researchers to undertake further studies related to the present study.

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